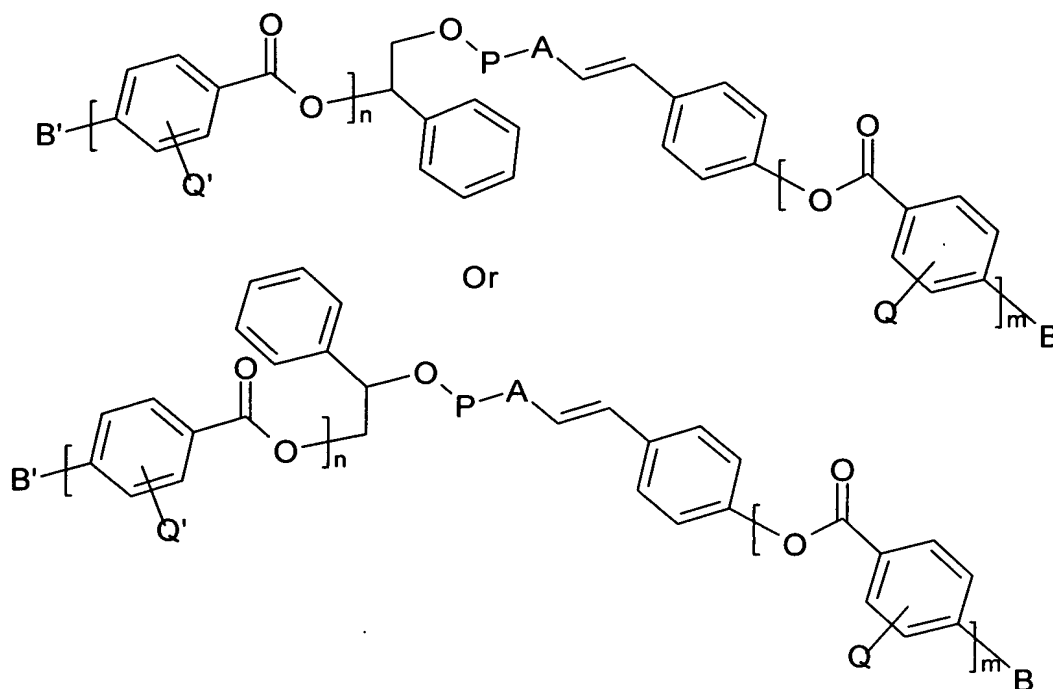


CLAIMS:

1. A phenylethanol derivative, characterized in that the phenylethanol derivative comprises at least one photo-convertible group suitable for adjusting the helical twisting power of the phenylethanol derivative.
- 5 2. The phenylethanol derivative of claim 1 further having at least one polymerizable group.
3. The phenylethanol derivative of claim 1 or 2 wherein the photo-convertible group is a photo-isomerizable group.
- 10 4. The phenylethanol derivative of claim 3 wherein the photo-isomerizable group is an olefinic group.
5. The phenylethanol derivative of any one of claims 1-4 wherein the
15 polymerizable group is a (meth)acrylate group.
6. The phenylethanol derivatives of any one of the preceding claims wherein the phenylethanol has the formula



wherein

A stands for a bond or a p-phenylene group;

5 B and B' are independently $(O)_p-C_6H_{2o}-O-CO-CR'=CH_2$, o being 2-12, p being 0 or 1, and R' being H or CH_3 ;

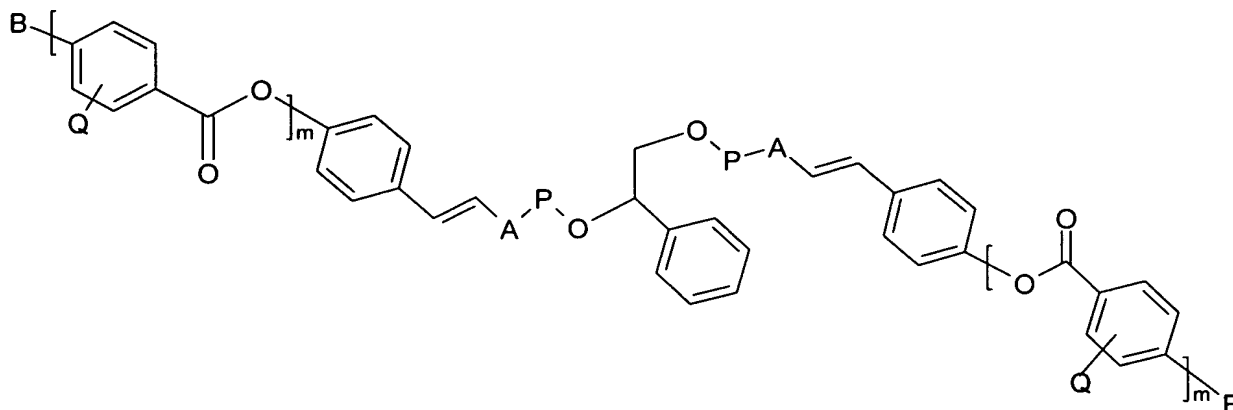
P stands for a CH_2 or a $C=O$ group;

Q and Q' are independently selected from H, C1-C3 alkyl, C1-C3 alkoxy, halogen, and CN;

n is an integer from 1 to 3; and

10 m is an integer from 0 to 2.

7. The phenylethanediol derivative of any one of the preceding claims wherein the phenylethanediol has the formula



wherein

A stands for a bond or a p-phenylene group;

B is $(O)_p-C_6H_{2o}-O-CO-CR'=CH_2$, o being 2-12, p is 1, and R' being H or CH_3 ;

5 P stands for a CH_2 or a $C=O$ group;

Q is selected from H, C1-C3 alkyl, C1-C3 alkoxy, halogen, and CN; and

m is an integer from 0 to 2.

8. A method for the preparation of the phenylethanol derivative of claim 1 by
 10 the steps of a) synthesizing a 2-hydroxy ether-protected phenylethanol, b) followed by
 etherification or esterification of the 1-hydroxy group of the 2-hydroxy ether-protected
 phenylethanol with an alcohol (or derivative thereof) or acid, respectively, optionally
 comprising polymerizable and/or photo-convertible groups, c) then cleaving the ether-
 protective group to obtain a phenylethanol derivative with a free 2-hydroxy group, and
 15 optionally d) esterification of the free 2-hydroxy group with an acid which optionally
 comprises one or more polymerizable and/or photo-convertible groups.

9. A cholesteric composition comprising the phenylethanol derivative of any
 one of claims 1-7.

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10. An optical element, preferably an optical color filter, comprising the
 phenylethanol derivative of any one of claims 1-7.

11. Use of the phenylethanol derivative of any one of claims 1-7 in optical
 25 elements.